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HOW HAS IT BEEN DONE?

By

SAMUEL INSULL

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HOW HAS IT BEEN DONE?

Some Reflections on the Amazing Rise of the
Electric Light and Power Industry

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FOREWORD

An address by Samuel Insull to the Public Relations Committee of the National Electric Light Association and their guests in Louisville, Ky., April 9, 1925, is reproduced in these pages. It focuses the experience of a pathfinder, pioneer and master-builder upon salient factors which have been, and still are, potent in making Electricity the supremely versatile and untiring servant of the American people. Its facts and conclusions are therefore recommended for study and use in promoting better public understanding of our industry.

NATIONAL ELECTRIC LIGHT ASSOCIATION.

How Has It Been Done?

Some Reflections on the Amazing
Rise of the Electric Light
and Power Industry

IT has been my good fortune to be connected with the electric light and power industry practically from its inception. My bread and butter—not so very much butter either—was being earned in the service of Thomas A. Edison some forty-six years ago in the city of London, at a time when the telephone was still Mr. Edison's major commercial interest, and electricity for light and power on a commercial scale was still an experimental interest.

Opportunity drew me to America and still deeper into the service of Mr. Edison a year and a half before the first electric central station in the world (the Pearl Street Station of what is now the New York Edison Company) was put into operation on September 5, 1882. The industry's entire period of development and expansion up to this time has thus come within the working years of a single individual who is still in harness and not thinking of retirement.

AN INDUSTRIAL MARVEL

TO say that this electric light and power industry of the United States is an industrial marvel is to say the obvious. The bare facts speak for themselves. But to say why these facts have come into being is another matter.

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Here is an industry that has risen in forty-odd years from the status of a laboratory experiment to the gigantic proportions represented by a cash investment of \$6,600,000,000, gross revenue last year of \$1,350,000,000, municipal, county, state, and federal taxes paid to the amount of \$135,000,000, and regular daily service to more than 16,000,000 customers; an industry that has made the magic of electric service a commonplace of every-day life; an industry that supplies conveniences and comforts to the day laborer which kings could not command only half a century ago; an industry that has made Electricity, the Wonder-Worker, more useful, more economical to use, and more easily accessible to more users, here in the United States, than it is anywhere else on earth.

This amazing record has no parallel. The making of it has not been accidental. Obvious and superficial reasons—time and circumstances and the like—do not fully explain it. Much of it has been due to factors utterly unrecognized by the layman, and sometimes undervalued within the industry.

The growth of these forty-odd years will be equalled if not surpassed in the next forty or fifty years, I believe, unless the industry is hampered by artificial barriers, erected out of misunderstanding or plain ignorance. We, who are responsible for the industry, should see to it that factors which have contributed to making the industry what it is are not now paralyzed, to the detriment of its future growth and expansion, and its increasing usefulness to the public.

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FACTORS IN ITS DEVELOPMENT

AMERICAN principles and practice—the genius of America and American institutions—come first of course among factors in the development of this, as of every other industry that has had pioneering to do. The encouragement and free play given to individual ambition and energy and initiative and enterprise in the United States, no less than the natural resources and opportunities of a rich new land, have made this country what it is. The electric light and power industry owes as much as any other to this freedom of action. But, in acknowledging the debt, let us not countenance disparagement of the use that has been made of our opportunities.

If we Americans ever put restrictions upon individual ambition and enterprise by adopting government ownership, then we shall have necessarily a government far different from this that has fostered development of the United States, and consequently we shall have a far different country to live in. Government ownership, once begun in this industry, will soon be extended to the factory and the farm—to government ownership of all business and industry, including the colleges and universities and newspapers that play with the idea.

Within the electrical industry, and second only to the opportunities derived from American adherence to individualism, the chief up-building influences have been the stark genius of Thomas A. Edison and the inspiration he and his teachings have been to other men. It may be truthfully said that Mr. Edison in-

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vented the industry. His inventions are the basis of central station operation as it exists today. He devised the apparatus and accessories required to enable the first central station to function, and to a considerable degree he devised the ways and means of producing that apparatus and even built the plants for manufacturing it.

EDISON—SEER AND TEACHER

EQUALLY significant was the vision with which Edison endowed the industry in its cradle. Other men, in working out the details of development, from details of construction and operation to details of financing and management, have drawn upon the inspiration and the direct guidance they had from him; for he was a wonderful teacher to all who had contact with him. There was practical education, beyond anything that colleges or universities can impart, in his continual searching for information, for short cuts, for adaptation of old means to new ends, for the better way of doing things; education in the courage and boldness with which he struck out on new lines; education in his readiness to "scrap" the old when something better was found. He would "scrap" a million dollars worth of unproductive experimental work—and that was more money then than it is now—as easily as you toss away a half-burned cigar.

SCRAP-PILE AN ASSET

THE industry, in its beginning, caught from Edison this eager, aggressive searching for something better, whether in methods or

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machinery; this readiness to "scrap" the old instantly when the new assured a gain in efficiency and economy. It has been a characteristic of our industry as of no other that I know, and it has been an important stimulus. Consequences of it are concretely visible in those great industrial institutions which have specialized in manufacturing electrical apparatus and equipment and which, in so doing, have contributed in full measure to the upbuilding of the industry.

Their resources have been employed without stint in research and experiment. On the other hand, the results of their work have been promptly seized and applied in the building and operating side of the industry. Thus research, experiment, and invention have been encouraged and the industry's development correspondingly accelerated.

The "scrap-pile" has been one of our assets. No branch of the industry, from manufacturing apparatus to generating, distributing and applying energy, has ever been open to the charge of suppressing inventions or improvements. On the contrary, we have been mildly criticized for throwing out apparatus and accessories before they were entirely obsolete or worn out, but criticized only by the short sighted.

RECORD INDUSTRY'S OWN

OUR "scrap-pile policy," so to speak—discarding the old and adopting the new, in machinery or methods, the moment it assured a gain in efficiency or economy (which are

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basically the same thing)—has been responsible for much of our rapid progress. It has hastened the efficiencies and economies which have given the industry its record of constantly more and better service, year by year, to more and more users of it, at rates tending steadily downward.

This record stands out. It is of the industry's own making to a unique degree. Regulatory authority has had little or nothing to do with it. On service standards, rates and all the rest of it, regulatory orders have only given effect to the results of economic law and of our well established business policies.

We seek always more volume of output and greater diversity of load. We get them by means of best possible service at lowest practicable rates and intelligent sales-engineering. It should be unnecessary to remind even the layman that poor service and high rates retard volume, as good service and low rates stimulate it. Hence self interest alone would dictate that we charge the lowest rates consistent with the financial requirements of a sound and growing business.

NO "POWER TRUST"

NO other industry that I know of can show a comparable record of economies and efficiencies promptly and voluntarily—voluntarily mark you—passed along to the ultimate consumer. I mention it, not in boastfulness, although it is a proud record, but because it has been no small contributing factor in the magical rise of our industry. In this record,

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plus the natural economics and the business policy of the industry, as already indicated, you have a complete answer to those who, for selfish purposes, seek to capitalize such phrases as "exploitation of the people" and "corporate oppression" and "power trust," which are of course silly and meaningless.

In sketching development factors, it is only fair to concede that perhaps we have been hampered less than some other public utilities by political and kindred demagoguery. The mysterious character of electrical energy may have helped us. Very few, except those who are handling it, know much about how it works and self-conscious ignorance sometimes restrains the meddler.

FAVORS REGULATION

YEARs ago there was a saying in circulation, to the effect that "Everybody thinks he can run a hotel, a railroad, or a newspaper, better than anybody now running one." This may explain our American tendency to propose so many statutory rules—for the other fellow. If the essence of our business were as tangible as that of the hotel, the railroad, or the newspaper, we might have encountered more of this, although we have had some of it and are likely to have more.

I am not referring here to regulation of our business, as a natural monopoly, by state commissions. I went on record in favor of that more than a quarter of a century ago and have been preaching it ever since. I refer to another class of proposals. The authors of them are a mixed lot, ranging from itinerant Chau-

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tauqua performers to United States senators and governors of states, but they are all alike in one respect. They tackle the most intricate problems of engineering, of finance, and of industrial economics as blithely as they would set about organizing a basket picnic.

ECONOMIC AND OTHER PROBLEMS

I HAVE time here only to remind those gentlemen that building dams and installing generators are not the only factors in successful hydro-electric or other electrical development; that a market for the energy, and taking the energy economically to market, are constant factors of some importance; that the problems of "super-power" or "giant power" are not all technical but include some fairly weighty economic problems; that the location of a central station's load may be as important as the location of its fuel, in determining where the central station shall be built; that abundant water supply is a prime factor in locating a modern generating station, since 500 to 700 tons of cold water must be pumped through the condensing apparatus for every ton of coal burned, and water supply is not always available at the mines; that central station companies are more eager than anybody else to locate generating stations at the mine-mouth whenever it is economical and practicable to do so; and so forth to the end of the chapter.

GUARANTIES OF GROWTH

BUT the impressionistic pictures of the electrical future, which various socialistic or merely political gentlemen have been painting

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lately, are not to be taken too seriously. The laws of economics, including that of supply and demand, have not yet been repealed. The ambition, experience and initiative of this industry, working under economic law and under the American plan of encouraging private enterprise, are still the surest guaranties of "super-power," of "giant power," of hydro-electric, or any other phase of electrical development for the greatest good to the greatest number.

The development-factors which have been touched upon—and only the high spots have been touched—were conspicuously potent in the first half or two-thirds of the industry's life, and in its manufacturing, building and operating activities.

The factor of highest significance in later years, especially to populations not yet fully supplied with electric service, has been at work on the financial side of the industry. Here again is illustrated the industry's Edisonian aptitude for adapting old means to new ends.

First-rate electric service is no longer confined to the large cities. The small cities, the villages, and even rural hamlets have it. Electrification of the farms is on the way—just around the corner—has indeed arrived in some localities.

This has been the outstanding development of the last dozen or fifteen years. Most of it is due to the so-called "holding companies," which have performed prodigies in spite of the handicap of their inept family name.

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ABOUT "HOLDING" COMPANIES

THE term "holding company" is doubly a misnomer. It does not express either the character or the function of the companies to which it is applied, and it is utterly erroneous in suggestion. It tends to suggest restriction—the getting hold of something and keeping it for the profit of "insiders," or for a closely restricted circle of interests. It is a relic of the industrial combination era in the later nineties (immediate predecessor of the "trust busting" era), when "holding companies" were organized to own or control other companies in the same or contributory lines of business, with monopoly restriction of output and increased profits among their objectives.

The so-called "holding company" in the electric light and power business is something quite different. It is more properly an *investment company*; even more accurately perhaps, a *development company*. Its primary purpose is to expand and energize the facilities and resources and activities of the local or subsidiary companies that are under its wing, and to broaden opportunities for safe investment. Still more important to the general public, the effect of what it does is that high grade electric service is placed at the command of more and still more users who would otherwise have far less efficient service or none at all.

FINANCIAL HAZARDS REDUCED

FINANCIALLY speaking, this type of company is not new. It is an elaboration of the "investment trust" which was long since

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standardized in Great Britain. The United States Department of Commerce has made English and Scotch investment trusts the subject of special inquiry and report by Leland Rex Robinson, American Trade Commissioner in London. His report characterized them as well illustrating the saying, "In union there is strength," and as enabling the uninitiated investor "to put his eggs in more than one basket even though, strictly speaking, he has only one egg."

This type of investment company, as adapted to the public utility industry here, serves the investor as the foreign "investment trust" does. Its securities enable him "to put his eggs in more than one basket even though he has only one egg." It does this by applying the insurance principle; by spreading the risk and so minimizing it; for, back of the investment or "holding" company's securities, lies the earning power of several companies doing a highly diversified business in diversified communities. On the public interest side, as stated, the investment company fosters extension of the conveniences, the comforts, and the all-around advantages of public utility service to communities and populations which otherwise would be poorly served, or served not at all.

SERVICE TO PUBLIC INCREASED

WHEN this phase of development in the electric light and power industry began, the larger cities were already pretty well supplied with central station service. The large-city business had not yet approached present

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proportions in output, in diversity of use, in number of customers served, and so on, but the makings of it were all present. Some fairly large city companies were financed and generally supervised by "holding" companies, but the smaller cities and towns and villages were still stumbling along with low grade service or none at all.

About this time, the proved advantages of producing energy by means of large generating units, in large central stations, and distributing it over wide areas, opened the way for the investment or "holding" company, as we now have it, to extend first-rate service to the smaller cities and towns and even to rural hamlets. In 1912 there were 5,221 central station enterprises of all kinds in this country, serving in the aggregate less than four million customers. There are now about 6,500 central station enterprises of all kinds serving more than 16,000,000 customers. While the number of central station enterprises has been increasing a little less than 25 per cent, the number of customers served has increased 327 per cent. Much of this increase in customers served must be credited to development by investment or "holding" companies, since the ratio of customer-increase in the larger cities, great as it has been, nowhere reaches this 327 per cent growth in the number of customers at large.

LOCAL COMPANIES STRENGTHENED

INVESTMENT companies of the accepted type in the electric light and power industry are not the sole owners nor do they directly

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operate their local subsidiary companies. The control they have comes from their ownership in the securities of the local companies, mostly the junior securities. This control is exercised only to give the local company the advantages of large-company experience, ability, and financial resources.

Before a local company can supply service or expand to meet growing demands, it must have capital. The investment or "holding" company, having established a high credit rating, sees that the capital is provided, and provided at lower interest rates than the local company could get for itself. It then furnishes expert engineering service of a quality the local company could not afford. It masses the purchasing requirements of many subsidiaries and so saves money for all of them. It places at the service of the smallest operating company in its group the managerial experience and ability acquired in immensely larger fields.

SERVICE EFFICIENCY IMPROVED

THIS is important because two distinct fields of activity are represented in the administrative operation of a public utility, namely: (1) determination of the broad technical and managerial policies; (2) supervision of the day-to-day business of the company. Operating efficiency is improved under the stimulation and guidance of the investment company's broader experience. Its assistance is still more valuable in making decisions on the larger questions of technical and managerial policy, which arise infrequently but are vital

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when they do arise, because mistakes in them are always costly and may be disastrous.

The accruing benefits of investment or "holding" company supervision, as I shall try to show concretely in a moment, both in health and prosperity for local companies *and in service to the communities concerned*, are practically all a net gain, which could be got in no other way. The process literally is that of making two blades of grass grow where but one grew before.

RESULTS ALL TO THE GOOD

THERE is no element here of the investment company fattening itself at the expense of its subsidiaries. On the contrary, its job is to strengthen and guide the local companies, and investors in them, on the road of prosperity. It applies its brains and resources to putting them in a position to supply good service at reasonable rates and thereby build up their business. In other words, to make good for itself and for the investors in its own securities, the investment company must first see to it that the local companies make good. In so doing, the investment company of course enhances the value of its own holdings in the securities of the local companies, *but at the same time it also enhances the value of all other securities of the local company regardless of who may own them.*

The investment or "holding" company does not fix the rates charged by the local company. Speaking practically, its only influence upon rate-making is to help the local company im-

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prove facilities, develop business, and establish rate schedules on a basis that will tend toward lower rates and still more business. This influence is important especially to the customers of the local company. The only way a local company can make good is by supplying good service at reasonable rates. The supervision of the investment company is applied and always applied in helping the local company do exactly that. The net result is that communities served by companies that are under the supervision of an investment or "holding" company in the long run get better service at lower rates than they would otherwise have.

SOME BASIC IDEAS

FOR examples of this type of investment company, illustrating what I have just said, I must necessarily draw on my own experience. I have in mind such a holding or investment company organized in 1912 which grew out of a conviction that full electric light and power service could be profitably supplied to compact groups of smaller cities and towns, through closely knit transmission systems, fed with energy from efficiently operated and advantageously located central stations of large size.

Among the ideas at the base of this company were these: that cities and towns within prescribed areas be tied together by transmission lines to form "electrical districts" served from economically located central stations; that the "electrical districts" be distributed in various

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states, to assure the utmost of protection to the investment company, by means of wide diversity in the use of electrical energy and to lessen the effect of adverse conditions, business or otherwise, which might hit purely local enterprises; that substitution of full twenty-four-hour service for the "dusk to dawn" service of isolated plants, poorly financed and incapable of expansion, would stimulate the growth and development of cities and towns within "electrical districts" and so assure continuous growth of subsidiary company business.

EXPERIENCE A PRIME FACTOR

THIS conception and its first fruits really grew out of experience just across the river from here in Southern Indiana. Back in 1902, electric and gas properties which were giving unsatisfactory service in New Albany and Jeffersonville, were acquired and merged. The first consolidated balance sheet showed a gross income of less than \$7,000 for the month, and a net of \$76.12. Aggressive business-getting produced a little better showing for the year—nearly \$163,000 of gross income and a net of about \$36,000. The prospects prompted the acquisition of additional utility properties until there were four active companies in the group. But after ten years of applying the best obtainable engineering, and financial and commercial supervision, results were far from satisfactory.

This experience brought realization that the smaller communities can be given metropolitan

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service only by linking them up with each other and with larger communities, and applying centralized production of energy and supervision of operation. Properties that could not maintain themselves were thus converted eventually into profitable units in a larger organization. There were some losses to the original local-company investors, but investors as well as customers gained in the long run; the investors, by saving a part of their property which otherwise would have been entirely wiped out; the customers, by much better service.

CONCRETE RESULTS CITED

TIME has proved the correctness of this investment company conception in all respects—in the aspect of public service as well as in the investment aspect. From the small beginnings in 1912, this “holding” or investment company now represents 26 operating and subsidiary companies which had a gross income in 1924 of approximately \$41,500,000. They supplied public utility service of one kind or another (65.5 per cent of the earnings are electric) to more than half a million customers, in 915 cities, towns and villages (communities having some form of corporate organization), with an aggregate population of more than 2,000,000. The largest city served has a population of 102,000; the next largest, less than 40,000. Probably a third of them would have only “dusk to dawn” service, and scores of them no service at all, without the investment or “holding” company.

The 915 communities are grouped as “elec-

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trical districts" in 15 states, from Wisconsin to Tennessee, from Nebraska to Virginia, and from Maine to Texas. More than 400 small, inefficient and therefore uneconomical plants have been superseded by modern generating stations. The electrical energy thus produced is distributed in the various "electrical districts" by an aggregate of 8,500 miles of high-tension transmission lines.

DIVERSIFIED INDUSTRY SERVED

IN addition to the usual local industries of thriving communities, the greatly diversified character of business served by the subsidiaries, with all consequent advantages, is represented by the iron mines, the wood-working, and the cheese factories of Wisconsin; by the copper mines of Michigan; by the Bedford stone quarries of Indiana; by the spindles of New England; by the coal mines of Illinois and Kentucky; by the oil wells of Oklahoma and Texas. Development of new business under the stimulus of investment company supervision is exemplified in the ice business which now constitutes 6.3 per cent of the company's gross earnings.

An operating company in central Illinois aptly illustrates other phases of the function of the holding or investment company by which it, the operating company, is controlled. This operating company began with the service in two or three small cities in 1912 and had a fair measure of growth. During the war it was simply unable to finance itself and seemed headed for the rocks. It was carried by the

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investment company of which it is now the largest subsidiary.

The operating company has been completely restored to physical and financial health, and now serves upwards of 230 communities. The largest one, recently acquired, has a population of about 38,000; all but one of the others are below, and mostly far below, 8,000 in population; many of them are hamlets of 50.

SMALL COMMUNITIES BENEFITED

ALL of these 230 odd communities have full twenty-four-hour electric service. Fully two-thirds of them under other conditions would not have better than night service, and at least half of those two-thirds would have no service at all. Their situation, to digress a moment, shows how the detail of rates paid for public utility service is usually over-emphasized in discussions of the subject. A cent or two more or less per kilowatt hour for electric service is of slight importance to those communities, in comparison with having full twenty-four-hour service instead of part time service or no service at all. Anyhow, the rates must be reasonable or the business will languish; so the company is quite as much interested as the consumer that rates charged be reasonable.

For serving these 230 odd communities, this operating company operates only eight main generating stations, with eleven stand-by stations for peak load and emergencies. Central station energy is distributed by means of 1,725 miles of transmission line. Mass production of

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energy, transmission line distribution, and diversity of load all tend to produce better service at reasonable rates.

IN TEXAS—IN KENTUCKY

DOWN in Texas, dozens of communities are getting full twenty-four-hour service from subsidiaries of this same "holding" company which otherwise would be getting part time service, or none at all. Right here in Kentucky a centralized generating and high-tension transmission system is doing the same thing for dozens of communities.

Development of the Dix River water power, now nearing completion, has been talked about for twenty years. Nothing was done because the necessary conjunction of economic circumstances and financing resources had not arrived. It is going along to successful completion because the investment or "holding" company had the credit and resources to carry it, and is in a position to market the output to another subsidiary on terms that will save money to that subsidiary and provide a return on the hydro-electric securities.

ADVANTAGE TO ALL

ONE could go on indefinitely citing similar examples of investment company functioning, to the advantage alike of their investors and of the populations served by their subsidiaries, and so for the common good. But not as charitable institutions. I would not im-

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ply anything of the kind. They are business institutions, and are managed like other business institutions, to earn fair wages for the invested capital in return for the work it does. On the one hand, they bring together the accumulations of thousands of small capitalists who would have difficulty in finding safe and profitable investments, each for himself; and on the other hand, they put this massed capital to work in essential local community services on terms which the local enterprises could not get for themselves, and then see to it that the massed capital is employed to the best advantage for all concerned.

If these companies were not serving a useful purpose they would not have had the growth which they have enjoyed. That is a law of commercial and financial economics. Their importance in the industry is such that to hamper them is to hamper the industry.

A PARADOX LOOMS UP

THERE are 135 such companies in the United States, representing 41.3 per cent of the total capitalization of the public utility industry, and 47.8 per cent of the gross revenue. The seventeen financially largest public utility groups, which embrace the more important investment companies and allied interests, together represent 43.7 per cent of the total capitalization, but they also represent 49 per cent of total investment in plant and equipment, thus indicating conservative financing. Also, and further reflecting their efficiency, with only 43.7 per cent of the total capitaliza-

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tion, these seventeen groups represent 48.4 per cent of the industry's total generating capacity, 49.6 per cent of the total electrical output in kilowatt hours, 51.4 per cent of the gross income, and 56.1 per cent of the population served.

The situation of these seventeen groups is almost paralleled by that of the seventeen largest railway systems which together represent about half of the country's railway business. One may wonder why there are proposals that "holding" companies in the electrical industry should be handcuffed at a time when consolidation of railroads into still larger affiliated or operating groups is being urged.

The most important aspect of this investment company phase of our business has been reserved for discussion at the last, because duty to the public we serve as well as to our industry dictates that we should see it, and make others see it, with crystal-like clarity. It is this:

Proposers of handcuffs for investment company development should be forced to face the fact that they are not striking at "exploitation of the people," at "corporate oppression," at "power trusts," or anything of the kind; they are striking primarily and especially at the populations which want the conveniences, the comforts, and the all-around advantages of complete electric service, and have not yet got it. These populations include, and especially include, rural communities—the farms of the United States, and the nearly 40,000 towns and villages that have no electric service.

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THE HOPE OF RURAL DISTRICTS

ACCORDING to a compilation as of January 1, 1924, made by the Electrical World, all cities, towns and villages in the United States of 5,000 population or more, and enough smaller ones to make a total of 16,642, then had electric central station service, and their aggregate population was approximately 66,000,000.

Of those 16,642 cities, towns and villages nearly 14,000 were under 2,500 in population; nearly 10,000 were under the 1,000 population mark, and more than 4,000 were under the 250 mark. It is a fair inference that most of them had central station service only because of investment or "holding" companies, since communities of that size do not support individual central station service.

But there were 36,645 towns and villages, having populations of less than 5,000 each, which had no central station service, and their aggregate population was approximately 7,000,000. All but 62 of them were under 2,500 in population, and 28,644 were under 250 in population. Therefore, it should be obvious that the people living in those communities want and need the comforts and conveniences and the economies of central station service much more keenly than existing electrical companies need the business to be got from a population of only 7,000,000, split up among 37,000 communities, more than 75 per cent of which have less than 250 inhabitants each.

The cities already having central station service, represent 90.6 per cent of the total urban

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population of the country. This is concentrated population, where the electrical business obviously prospers most. The industry's greatest future growth, in customers, in output, and in revenue, inevitably will come at the centers of concentrated population, as it has been coming.

With the exception of farming and mining, probably 95 per cent of our present and potential industrial load is concentrated in the communities already supplied with central station service. There is an abundance of business still to be acquired in and around population centers. But economic law as well as good business practice, for business is not exclusively money-making, urges us on to complete the development of the industry.

PUBLIC MOST CONCERNED

OUR situation is not unlike that of the railroad industry, half a century back, before the great trunk and trans-continental lines were completed. Our local development is well established. The next logical step is to carry on, by means of transmission lines and interconnections, the trunk line development—call it “super-power” or “giant power” or what you will—already so well begun under investment company auspices.

From this point of view we are concerned—and the general public has much more at stake than we have—that investment or “holding” companies shall remain unshackled. Small town and rural populations want electric service as much as their hitherto more fortunate

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neighbors. Industry seeks freedom from the necessity of massing itself at congested centers, but cannot be freed without assurance of ample and reliable power. All of those interests are entitled to have, as soon as practicable, the full electric service that can be supplied only by transmission lines and interconnection development. We want to supply it because it will tend to round out and complete the structure of our industry.

But the problems of extending electric service to unsupplied populations and areas, including the farms, and of enabling industry to decentralize, are more financial and economic than they are technical. The investment companies are the only agency yet developed for dealing effectively with these problems. They have made great progress in solving them, as reflected in the thousands of hamlets now enjoying full electric service which otherwise could not have any. The only hope of completing the job, on a scale that will satisfy demands, lies in permitting these companies to finish the work they have so well begun in this latest phase of electric light and power development in the United States.

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